

# **Classification Management**

AD 727 563



**JOURNAL OF THE NATIONAL  
CLASSIFICATION MANAGEMENT SOCIETY**

**VOLUME III No. 1 - 1967**

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INFORMATION SERVICE**  
Springfield, Va. 22151

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Published quarterly. Annual subscription, \$10. Editorial address: 1209 Grand Avenue, N.E., Albuquerque, N. M. 87106, Edward H. Calvert, Editor. Views expressed by individuals in the *Journal* do not necessarily represent views or official positions of NCMS.

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NCMSJ—1967

# **PROGRAM**

## **THIRD NATIONAL SEMINAR**

### ***Security with Economy***

**International Conference Room, Department of State,  
Washington, D.C., July 19-21, 1967**

#### **Wednesday, July 19**

- 8:00 a.m. **REGISTRATION** (Enter State Department building at C. Street door)
- 9:00 a.m. **CALL TO ORDER BY SEMINAR CHAIRMAN**, Howard G. Maines, National Aeronautics and Space Administration.  
**WELCOME BY CHAIRMAN OF THE BOARD**, Donald B. Woodbridge, Union Carbide Corporation, Nuclear Division.  
**BUSINESS MEETING CONDUCTED BY PRESIDENT**, Richard L. Durham, Office of the Assistant Secretary of Defense (Atomic Energy).
- CHAPTER REPORTS:**  
Northern California — Robert D. Donovan, United Aircraft Corporation.  
Southern California — Richard J. Boberg, Aerospace Corporation.  
Washington, D.C. — Alfred E. Dupell, Department of the Navy.
- 10:45 a.m. **KEYNOTE ADDRESS**, Honorable John E. Moss, Member of Congress, Third District, California, Chairman of Foreign Operations and Government Information Subcommittee of the Committee on Government Operations.
- 12:00 noon **LUNCHEON**  
**WELCOME**, Honorable Idar Rinnestad, Deputy Undersecretary of State for Administration.  
**LUNCHEON ADDRESS**, Joseph J. Liebling, Director for Security Policy, Department of Defense.

- 1:45 p.m. **PANEL — EXECUTIVE ORDERS AND LAWS AFFECTING CLASSIFICATION IN THE GOVERNMENT.**  
Moderator — Clifford J. Nelson, Department of Justice.  
Panelists from the Atomic Energy Commission, Department of Defense, Department of Justice, and National Aeronautics and Space Administration.
- 4:00 p.m. **PANEL — RESEARCH IN AUTOMATED CLASSIFICATION MANAGEMENT**  
Moderator — Joseph F. Cunningham, Bureau of the Budget.  
Panelists from ADP suppliers.
- 6:30 --
- 8:30 p.m. **PRESIDENT'S RECEPTION**, Eighth Floor Reception Rooms, Department of State Building.

### **Thursday, July 20**

- 9:00 a.m. **PANEL — CLASSIFICATION IN THE DEPARTMENT OF DEFENSE TODAY**  
Moderator — George MacClain, Department of Defense.  
Panelists from the Army, Navy, Air Force, and Department of Defense.
- 11:15 a.m. **CLASSIFICATION IN THE FEDERAL GOVERNMENT**, John F. Doherty, Chairman, Interdepartmental Committee on Internal Security.
- 12:00 noon **LUNCHEON**  
**CLASSIFICATION IN MILITARY R&D WORK**, Lieutenant General Austin W. Betts, Chief of Research and Development, U. S. Army.
- 1:45 p.m. **PANEL — INTERNATIONAL ASPECTS OF CLASSIFICATION MANAGEMENT**  
Moderator — Richard L. Durham  
Panelists from Department of Commerce, Department of State, Joint Atomic Information Exchange Group, and National Military Information Disclosure Policy Committee.
- 4:00 p.m. **TECHNOLOGICAL INFORMATION AND PUBLIC RELEASE**, James J. Bagley, U. S. Naval Research Laboratory.
- 4:30 p.m. **CLASSIFICATION IN DEFENSE-ORIENTED CONTRACT FACILITIES**, N. V. Petrou, President, Westinghouse Defense and Space Center.

## **Friday, July 21**

**9:00 a.m. PANEL — INDUSTRIAL ASPECTS OF CLASSIFICATION MANAGEMENT IN WEST COAST DEFENSE/AERO-SPACE INDUSTRY**

Moderator — Richard J. Boberg

Panelists from major firms in Southern California.

**11:15 a.m. PANEL — CLASSIFICATION MANAGEMENT IN THE NONPROFIT RESEARCH ORGANIZATION**

Moderator — Leslie M. Redman, University of California, Los Alamos Scientific Laboratory

Panelists from leading R&D laboratories.

**1:00 p.m. ADJOURNMENT**

Seminar Chairman Howard G. Maines, Chief, Classification Management and Industrial Security Branch, National Aeronautics and Space Administration, Washington, D.C.

Committee Chairmen

Correspondence Francis X. Jahn, Manager, Security, Westinghouse Defense and Space Center, Baltimore, Maryland.

Facilities Colonel Sidney S. Rubenstein, Industrial Security Coordinator, Mosler Safe Company, Arlington, Virginia.

Finance Eugene J. Suto, Supervisor, Security and Documents, Research Analysis Corporation, McLean, Virginia.

Program Leslie S. Ayers, Director of Classification, U. S. Arms Control and Disarmament Agency, Washington, D.C.

Registration Robert G. Niles, Assistant Chief, Classification and Policy Management, Defense Atomic Support Agency, Washington, D.C.

Reporting Leo J. Hodges, Chief, Security and Management Branch, Office of Inspector General, Andrews Air Force Base.

Special Activities Commander Dominic Brace, Jr., Head, Classification Management and Visit Control Branch, Naval Air Systems Command, Washington, D.C.

Registration fee \$30. Includes two luncheons and the President's Reception; spouses may come to the Reception.

For advance registration send check to Eugene J. Suto, 6116 Roseland Lane, Rockville, Maryland 20852 (see registration form, back page).

Seminar will be completely reported in the next Society *Journal* which will be sent to all attendees.

# COMPUTER-GENERATED INDEXES FOR CLASSIFICATION GUIDES<sup>†</sup>

By C. C. Carnes

The work described in this article was done at Los Alamos Scientific Laboratory, University of California, Los Alamos, New Mexico, and at Rocky Flats Division, Dow Chemical Company, Golden, Colorado, under Atomic Energy Commission contracts.

## Introduction

Good indexes are essential for classification guides. The imperative nature of classification management requires the effective and reliable use of classification guides, even though the user is often not intimately acquainted with the scope, organization, and rationale of the guide contents. That requirement can be met only by accurate, detailed, and up-to-date indexes to guides. The maintenance of indexes of this high quality is made particularly difficult by the continuing revision of most guides.

Fortunately the tools required to accomplish this task with a minimum of effort have been developed and are in widespread use. Computer indexing is a well established technique.<sup>(1)</sup> In particular the Key Word In Context (KWIC) index<sup>(2) (3)</sup> is ideally suited to classification guides.

## Description of One KWIC Index

Here is a sample topic typical of those in the Dow *Rocky Flats Classification Guide*<sup>(4)</sup> which was the first guide to be indexed by computer:

4321.0 The fact of use of plutonium in unspecified nuclear weapons U

The number uniquely identifies the topic. The terminal letter indicates the classification of the information referred to. There were originally a total of 386 such topics in the guide. The topics ranged in length to 380 characters, not including the number and classification letter.

In Figure 1 below are the index entries that would be made from the sample topic. The key words in the topic (those not contained in a list of insignificant words) are "plutonium," "nuclear," and "weapons." The entries are arranged in the index alphabetically by the key words, with the key words appearing near the center of the line, and with as much context from the topic as there is room for on both sides of the key word. A special character is used to indicate the end of the topic (an asterisk in the example). When the remainder of the topic does not fill the line, text from the beginning is used.

All rearranging and alphabetizing is accomplished by the computer. All words in the guide topics except those in the list of insignificant words are entered as individual key words in the index. There were 2400 entries

PLUTONIUM IN UNSPECIFIED	NUCLEAR WEAPONS* THE FACT	4321.0
THE FACT OF USE OF	PLUTONIUM IN UNSPECIFIED	4321.0
Fig. 1 UNSPECIFIED NUCLEAR	WEAPONS* THE FACT OF USE OF	4321.0

printed on 49 pages in the *KWIC Index to the Rocky Flats Classification Guide*.<sup>(5)</sup>

#### *Production of Rocky Flats Index*

This index was produced on relatively unsophisticated data processing equipment. The first step was to key-punch the entire text of the guide on IBM cards. Each topic required from one to seven cards depending on the topic length. The total deck for the guide contained 733 cards. This key-punching operation, similar to retying the guide, required several hours of keypunch operator time. When the guide is revised, cards need be punched only for changed and added topics.

The information on the cards is then transferred to magnetic tape. The computer manipulates this information to produce the index. A standard IBM program for library applications was used without modification. The complete text of a topic was treated as if it were a title for the purpose of the program. The title field has a maximum capacity of 500 characters which was adequate for this application. If any topic is longer than this it must be split for indexing purposes or the program must be modified.

The computer printout is used as the master copy for reproduction of indexes. The printout can be done on direct masters for offset reproduction, thus eliminating an intermediate step.

A list of insignificant words must be prepared prior to production of the index. The easiest way is to prepare a list of the obvious words such as articles, conjunctions, etc., and

make a trial run using this list. The index generated can then be examined for remaining garbage (we had printed out several pages of "fact of") and words can be added to the list if appropriate.

The particular program used will require decisions to be made on the use of punctuation. For example, whether the program used will index on the second segment of a hyphenated word will influence the decision as to whether the hyphens should be omitted in the keypunching operation. Printer or program limitations may preclude the use of certain characters such as parentheses.

Conventions on the use of abbreviations should be established. This is one of the niceties of editorial practice that become necessary with the use of machine methods.

The bulkiness of this kind of index may well pose a problem. Bulkiness could be alleviated by photo-reduction of the copy, but this entails an additional production step. An even greater compression could be achieved by using considerable photo-reduction and a two-column format.

#### *Further Applications*

A KWIC index is currently being prepared for the new *Joint Task Force Eight Classification Guide*.<sup>(6)</sup> This guide and index use the same format as the previous example. A slight change in punched card format has been made for greater flexibility.

A KWIC index was also prepared for a draft of the *AEC-DoD General Classification Guide for Continental Test Operations*.<sup>(7)</sup> This guide is written in the conventional AEC format

using sub-paragaphs, rather than the independent entry format. The sub-paragaph format is slightly more difficult to index, and the resulting index is somewhat less useful, but in spite of these problems a workable index resulted.

### *Primary Advantages of KWIC*

The most obvious advantage of the KWIC index is ease of maintenance. This was the primary reason for the first application of this technique to a classification guide. An adequate conventional index is often prepared when a guide is first issued, but typically the index revisions do not keep pace with the guide revisions. With KWIC the production of an accurate, up-to-date, detailed index is reduced to a clerical task that can be performed by someone with no comprehension of the document's contents.

An additional advantage has become apparent during the use of KWIC indexes to classification guides. This advantage pertains to the user of the index, particularly to a user not familiar with the organization of the guide. The KWIC index gives the user confidence that he has consulted all topics relevant to his problem even if they happen to be scattered throughout the guide.

### *Derivative Advantages*

If the cards are punched early in the rough-drafting stages of the guide, subsequent drafts can be easily obtained by adding, deleting, or replacing

the pertinent cards (hopefully only a small fraction of the deck) and running the deck through a printer or a card-driven electric typewriter. If necessary the printer or typewriter can produce direct masters for offset reproduction. The finished guide could even be produced this way if the usual upper case limitation is not objectionable.

The index is also a valuable editorial tool in that it provides convenient feedback on vocabulary control. For instance, if it is desirable to use one of two synonymous terms throughout the guide, the index provides a quick check on consistency and pinpoints any remedial action necessary.

### *Alternate Format*

There are computer programs available that produce KWIC-type indexes in a somewhat different format. In one of these the key word is printed at the left of the page and is followed by the complete topic in normal word order (Figure 2).

For a guide of the "independent entry" format, that is, where the meaning of topics is not dependent on a subordinating structure, this type of index could supplant the guide itself, as the entire topic would be entered under each of its key words. The "index-guide" eliminates the cross reference operation.

Disadvantages of this format are the somewhat slower scanning because the context words are not adjacent to the

Fig. 2

PLUTONIUM THE FACT OF USE OF PLUTONIUM IN  
UNSPECIFIED NUCLEAR WEAPONS 4321.0

U

extracted key word, and the possible separation of related topics when the index replaces the guide. Careful selection of vocabulary would minimize the latter.

### *Possible Extensions*

A natural extension of the use of the index for one document is to include other documents in the index. Classification guidance received at an installation could be keypunched and included to create a master index to all classification guidance in effect at the particular installation.

If this practice became widespread, it might be desirable to establish a uniform format and to transmit guidance by punched cards.

This technique would make practicable a master index to all classification guidance originated or approved by an agency or department, facilitating checking for consistency in guidance, and even perhaps making possible a comprehensive master guide.

### *The Ultimate*

The ultimate step in the automation of classification guidance would be to devise a formal syntax for the statement of guidance so that a computer could manipulate the logical interrelationships of topics. This syntax could be based on the mathematical approach of symbolic logic and Boolean algebra, or it could be based on the more semantic approach of classifying term relationships by means of "links" and "roles" as used in the Engineers Joint Council indexing system.<sup>(8)</sup> Such a formal syntax

would make possible computer checks on guidance consistency. In addition the computer could then be utilized in studying the "information impedance" of complex information networks.<sup>(9)</sup>

### *Reference List:*

- (1) "Automatic Indexing: A State-of-the-Art Report," *NBS Monograph 91*, 30 March 1965, U. S. Government Printing Office, \$1.50.
- (2) Luhn, H. P., "Keyword-In-Context Index for Technical Literature," *American Documentation*, Vol. 11 (1960) pp. 288-295.
- (3) *General Information Manual, Keyword-In-Context (KWIC) Indexing*, IBM Pamphlet E20-8091.
- (4) *Rocky Flats Classification Guide*, The Dow Chemical Co., Rocky Flats Div., Golden, Colorado, January 25, 1965, RFP-405, Secret Restricted Data.
- (5) *KWIC Index to the Rocky Flats Classification Guide*, The Dow Chemical Co., Rocky Flats Div., Golden, Colorado, May 10, 1965, RFP-600, Secret Restricted Data.
- (6) *Joint Task Force Eight Classification Guide* (includes the KWIC Index) to be issued in the Summer of 1967, JTF-8 Headquarters, Sandia Base, Albuquerque, N.M., Confidential Defense Information.
- (7) Index to the Draft dated Jan. 1967 of the *AEC-DoD General Classification Guide for Continental Test Operations*, CG-WT-2, DCL-599,

Los Alamos Scientific Laboratory,  
Los Alamos, N.M., Secret Restricted Data.

- (8) Bart E. Holm, *Information Retrieval—The Problem; Coordinate Indexing — A Solution*, Report of Engineers Joint Council, August

1963.

- (9) C. C. Carnes, "Application of Information Science to Security Classification," *Classification Management, Journal of the National Classification Management Society*, Vol. 1, No. 1, pp. 15-18.

## DOWNGRADING AND DECLASSIFICATION – SOME OBSERVATIONS

By Arthur F. Van Cook

The purpose of this article is to present some ideas of my own applicable to the problem of downgrading and declassifying information classified under Executive Order 10501. It should be understood at the outset that the ideas conveyed here do not represent, directly or indirectly, an official point of view of the Department of Defense or any of its subordinate elements. In this connection, the reader will notice that I have some observations that show that I do not believe that in all respects the existing established downgrading and declassification system is everything it should be. Anything written here that is critical of the existing system is offered so that it will provide food for thought on the part of anyone either in or outside the government who is interested in an effective and usable downgrading and declassification system.

The automatic downgrading and declassification system was established in the Executive branch in September 1961 under the provisions of Executive Order 10964 (amendment to Executive Order 10501). This

order provides that for automatic downgrading and declassification purposes, four categories of information are identified. These are:

Group 1: Information or material originated by foreign governments or international organizations and over which the United States has no jurisdiction, information or material provided for by statutes such as the Atomic Energy Act, and information or material requiring special handling such as intelligence and cryptography. This information is excluded from automatic downgrading or declassification.

Group 2: Extremely sensitive information or material that the head of an agency or his designees exempt, on an individual basis, from automatic downgrading and declassification.

Group 3: Information or material that warrants some degree of classification for an indefinite period. Such information or material is automatically downgraded at twelve-year intervals until the lowest classification is reach-

ed, but is not automatically declassified.

**Group 4.** Information or material that does not qualify for, or is not assigned to, one of the first three groups. Such information or material is automatically downgraded at three-year intervals and is automatically declassified twelve years after issuance.

In addition, Executive Order 10964 provides for continuing review of classified information on a document-by-document, category, project, program, or other systematic basis, for the purpose of downgrading and declassification whenever national defense considerations permit. Further, it provides that to the fullest extent practicable the classifying authority shall predetermine at the time of original classification if the information can be downgraded or declassified at a specified future date or after a specified event and shall so mark the information.

So much for the provisions of the automatic system. Now let's turn to its objectives.

The designers of the automatic downgrading and declassification system expected that effective implementation would accomplish these things:

Preserve the effectiveness and integrity of the classification system.

Eliminate classification of information that no longer requires protection, thus reducing the accumulation of classified material.

Make more information on government activities available to the public.

Reduce the costs incurred in the storage and handling of classified information.

Late in 1964, a partial study of the implementation of the automatic downgrading and declassification system indicated that it was not attaining fully the objectives for which it was designed. It was found, for example, that declassification of the Group 4 material after twelve years is not resulting in a reduction of storage and handling costs nor does such action contribute materially to informing the public on government activities. At most, declassification after twelve years makes certain information or material more readily accessible to historical researchers.

The question arises: Should we protect classified information generated today for twelve years hence and, in many cases, for longer periods of time?

To do so for certain information is understandable, such as for information over which the United States Government has no final classification jurisdiction, or for information provided for by statutes such as the Atomic Energy Act, or for information or material considered extremely sensitive such as intelligence data that reveal sources and methods. What about the remainder — for example, that great volume of information that now comprises the Group 4 category?

Experience has shown that in this day of rapid technological advance, obsolescence occurs quite early. Scientific and technical people estimate five years. The Nike Ajax, Redstone, and other weapons systems,

which a few short years ago were considered by many to be the ultimate, are now obsolete. These systems have been replaced by others of different design and capability. As the state-of-the-art advances, the new systems undoubtedly will be replaced by others. The Nike Zeus system, for example, was replaced by Nike X while still in the RDT and E stage.

The introduction of tactical nuclear weapons capability to the battlefield and the introduction of the helicopter as a weapons platform and transport vehicle brought about radical changes in military organizations, tactics, and techniques. In short, what is considered new and revolutionary today may be obsolete tomorrow, or the next day, or the next year—in most cases, in the next five years.

These types of information, when classified, carry security classification protection under the provisions of the automatic system for a minimum of twelve years. It is my considered opinion that continued protection of this information—much of it obsolete—for this extended period results in an unnecessary expense to Defense and industry and is not conducive to preserving the integrity and effectiveness of the classification system.

Under the provisions of the automatic system, classifiers are required to place on all classified material a notation\* that identifies the group

or category to which the information contained therein is assigned for automatic downgrading and declassification purposes. This notation also serves to indicate the automatic time-phased downgrading and declassification period intended by the originator. A "normal" stamp usually is used for this purpose, which for Group 4 material, for example, reads: "Downgraded at 3 year intervals; declassified after 12 years." Provision is also made for the use of an "optional" stamp, which indicates the specific time, date, or event on or after which downgrading and declassification action may occur. This latter option seldom is exercised because it is simpler for the classifier to affix the "normal" stamp than to calculate the specific anniversary date.

It is quite evident that these notations are misused within the DoD and industry, causing (1) the period for automatic downgrading and declassification to be extended beyond the time intended by the originator, and (2) the same information to have two or more levels of classification at the same time. For example, if an original classifier assigns new secret information to the Group 4 category on January 1, 1967, the information should, under the provisions of the automatic system, be downgraded to confidential on January 1, 1970. However, if a derivative classifier extracts classified information from this document and incorporates it in a newly created document on January 1, 1968, and places the normal Group 4 notation on the new document—that is, "Downgraded at 3 year intervals; de-

\*Six stamps or separate notices are used under the provisions of DoD implementing instructions in connection with the automatic downgrading and declassification system—one to identify the information in each of the four groups and two "optional" stamps for Group 3 and 4 material.

classified after 12 years" — the same information would hold two levels of classification during the period January 1, 1970, through January 1, 1971, and the information that should be declassified on January 1, 1979, would still be classified for an additional year.

Costs associated with the handling of classified material in transit and with top secret inventories can be reduced substantially when downgrading, declassification, destruction, and retirement actions are accomplished within a reasonable time after the date of origin. The question arises: What is a reasonable time after the date of origin? The following rationale is offered in response.

When classified documents are generated within the DoD, they are believed to be active for a period of six months to a year. This is the period in which the document is being acted upon or constantly referenced; this is the most sensitive period or the time in which unauthorized disclosure is most likely to occur; this is the period in which the information is of most value to an enemy; this is the time during which the classified document should be afforded the highest degree of physical security protection. In order to assure that every precaution is taken to safeguard the classified information involved, perhaps what I have referred to as the *active* period should be extended for an additional year, after which classified documents and the information contained therein become dormant. Such extension would, of course, create additional costs, costs involved in inventories,

preparation of receipts, transmission, etc., but such costs are acceptable to ensure that the information is physically protected for the period it is most likely in the *active* stage — two years.

Downgrading top secret and secret information after two years would result in a reduction of costs of handling such material in transit and of top secret inventories. The downgraded information would still be afforded a degree of physical security commensurate with its sensitivity.

I realize that many can point to special cases where classified information contained in plans, programs, and projects is of such a nature that automatic downgrading after two years is considered to be inappropriate. In these cases the information should retain its classification for the period deemed appropriate by the originator and all recipients of such information notified accordingly.

I believe that downgrading and declassification objectives should be those that can be achieved realistically. I believe that effective implementation of a downgrading and declassification program in the Department of Defense and defense industry should accomplish these things:

Preserve the effectiveness and integrity of the classification system.

Reduce classified inventories in the DoD and defense industry to the minimum consistent with operational requirements.

Reduce costs associated with the handling of classified material in transit and with the conduct of top secret inventories.

Other objectives, such as those mentioned earlier in connection with the current automatic downgrading and declassification system—to make more information available to the public, and to reduce costs incurred by Defense and industry in the storage of classified material—are not, in my opinion, actually realistically related to a downgrading and declassification program. In regard to making more information available to the public, downgrading certainly would not achieve such a goal, and declassification outside a meaningful time frame does not contribute materially to the attainment of such an objective. Declassification makes information more readily accessible to the public but the act does not usually carry with it automatic public release approval.

Downgrading and declassification actions appear to have little or no effect in reducing storage costs. A document once classified and stored remains a document stored after the classification is lowered or removed. Classified and unclassified documents are normally filed within the DoD and industry by subject. Those once classified and filed usually are not removed from one storage container to another offering a lesser degree of physical security protection when the classification is lowered or eliminated.

Practical goals for a downgrading and declassification program should be set which, through effective classification and records management, may be achieved. Those I propose are believed to be realistic and will be further discussed here.

The first objective I mentioned

was: Preserve the effectiveness and integrity of the classification system. The classification system is based on the philosophy that information should be classified only when it needs protection and should be relieved of classification when protection is no longer needed. All downgrading and declassification actions that occur within a meaningful time frame support this basic philosophy. Therefore, to some unmeasurable degree, such actions tend to preserve the effectiveness and integrity of the classification system. This, in itself, is a philosophic justification providing some support for the establishment of a downgrading and declassification program. As a practical matter, however, a rationale for downgrading and declassification action must rest on more substantive grounds. I believe these should relate to reductions in costs and in classified inventories.

Consider first the reduction of classified inventories. Downgrading appears to have no effect on reducing the overall classified inventory. It changes the inventories at different levels but the overall classified inventory remains unchanged. The question then arises, what does downgrading do for us? At most it can be said that early downgrading may save dollars while making the downgraded information more readily accessible to those having a need for it.

Declassification, of course, will reduce classified inventories. Experience has shown, however, that declassification actions within the Department of Defense are minimal, especially when they concern information originally

top secret and secret. As a result, any benefits to be derived from such actions are not readily apparent. The beneficial impact of declassification is best felt through mass declassification such as that accomplished by the implementation of DoD Directive 5200.9 whereby significantly large inventories of classified material were substantially reduced and a great wealth of formerly classified information was made more readily accessible to historical researchers and others.

Another, and what is believed to be the most effective, means of reducing classified inventories is destruction. Destruction of classified material in the higher classification categories is presently made somewhat difficult for the operating elements through the imposition of requirements to reflect final disposition, for example, the preparation of destruction certificates, witnesses, and the modification of other records such as logs and receipts. As a result, destruction activities are believed to be less than they should be to achieve more fully the objective of reducing classified inventories. In this connection, records management plays a most important role, for it is the records management program wherein time periods are specified for destroying non-record material, and it is through the records management program that destruction of classified material may be accelerated and made easier. By this is meant such things as the introduction of special programs such as that conducted in 1965 and 1966 in the DoD for the reduction of top

secret inventories.\* Standardization and simplification of forms such as receipts, logs, destruction certificates, etc., should also serve to make the entire process more efficient. I believe that the objective of reducing classified inventories is a realistic one and may be achieved through the effective implementation of a declassification program in concert with sound records management practices and procedures.

Next to be considered is the objective of reducing costs incurred by Defense and industry in the handling of classified material in transit and in the conduct of top secret inventories. Hard data are now available to show that the costs associated with top secret inventories may be reduced substantially when top secret documents are downgraded, declassified, retired, or destroyed within a reasonable time after the date of origin. Certain cost studies have been completed showing that the costs of handling classified material in transit vary with the level of classification and that cost savings are possible if downgrading and declassification can be accomplished sufficiently rapidly so that it will occur within the normal period of active use of the material. In this light, it is evident that this objective can be obtained through downgrading and declassification within a meaningful time frame.

So much for the objectives and the rationale to support their adoption. I believe that to achieve these goals,

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\*A sixty-day exercise in which the DoD top secret inventory was reduced by one-third at an annual estimated cost avoidance saving of \$125,000 for the calendar year following the close of the exercise.

the current automatic system needs change perhaps along the following lines. Establish two categories of information to substitute for the four in the present system. The first group would be what the classifier determines to warrant some degree of classification for an indefinite period and therefore would be excluded from scheduled automatic changes. This group would be comprised of (1) information originated by foreign governments or international organizations and over which the United States Government has no final classification jurisdiction; (2) information specifically covered by statute, such as the Atomic Energy Act; and (3) information identified on an individual basis by the head of a department or agency or his designee as extremely sensitive in the sense that for a period of indefinite duration its unauthorized disclosure would or could place in jeopardy a person, system, plan, program installation, or method of operation the continuing protection of which is required in the interest of national defense.

All of the remaining information would be subject to scheduled changes in classification in accordance with the following guidelines:

Top secret information would be downgraded to secret two years from date of origin and to confidential four years from date of origin and declassified ten years from date of origin.

Secret information would be downgraded to confidential two years from date of origin and de-

classified eight years from date of origin.

Confidential information would be declassified six years from date of origin.

Documents and material containing information subject to scheduled automatic changes would carry a notation indicating to the recipient in every case the specific date, time, or event on or after which downgrading and declassification action would occur, thereby assuring that the information would be downgraded and declassified at the time intended by the originator and preventing information from holding two levels of classification at the same time. In this connection, only two notations or stamps would be used rather than the six now provided for.

Based on this discussion the following concluding statements are offered:

Any downgrading and declassification system to be implemented in the Department of Defense and defense industry should (1) preserve the effectiveness and integrity of the classification system; (2) reduce classified inventories in the Department of Defense and defense industry to the minimum consistent with operational requirements; and (3) reduce costs of handling classified material in transit and of top secret inventories.

Making more information available to the public and reducing costs incurred by defense and industry in the storage of classified material are considered to be valuable side effects but are not demonstrable objectives of a downgrading and declassification program.

All downgrading and declassification actions that actually occur within a meaningful time frame support the basic philosophy that information should be classified only when it needs protection and should be relieved of classification when protection is no longer needed.

The automatic downgrading and

declassification system currently in effect is not accomplishing the task for which it was designed. Under the provisions of the automatic system, we are protecting information believed to be obsolete, thereby incurring excessive costs to the Department of Defense and defense industry.

## PROFESSIONAL QUALIFICATIONS

By Edward H. Calvert

What training and native endowments should a person have to be a good classification officer?

Since we are hopefully calling classification "the newest profession" it would seem to be important to address ourselves to this question. This article is not an attempt to answer the question, but rather to stimulate thought and discussion and to suggest a possible approach to developing an authoritative answer.

### *Required Capabilities*

Few fields of endeavor seem to require such a variety of capabilities. Donald B. Woodbridge, in his notable opening address at the first national NCMS seminar in 1965, said that "in the practice of our profession we find we must be informed in physics, engineering, and a host of other scientific disciplines. We must be expert buyers, accountants, lawyers, detectives, semanticists, masters of logic and rhetoric, we must be politicians and diplomats." And he added a sense of humor as the last but presumably not the least in his catalogue.

Such an array of requirements boggles the imagination, and particularly with the preface "expert," represents

a probably unattainable ideal. Essentially, however, it is an accurate listing of desirable qualifications for our field.

### *Where to Look?*

Considering first the matter of training, there is, of course, no curriculum that could equip a person fully to Mr. Woodbridge's specifications. And it is probably not realistic to expect that there ever will be one, or that degrees will be offered in so specialized a field as classification. But it is useful — and certainly interesting — to ponder the questions of where we should look, among graduates of existing courses of study, to find people likely to be good classification officers, and what specific courses should be taken by a person preparing for a career in classification.

Engineering training comes quickly to mind, because of the technical nature of much of the information that we want to protect. Engineers in any of the principal fields — mechanical, chemical, etc. — are well grounded in science and are oriented to practical aspects of it. An engineering graduate is sure to be an intelligent

and practical person. It is very likely that he will be able to perceive readily what the important element in a process or object is, and what information about it needs to be protected. This is to a large extent the name of our game.

There are some reservations about unhesitatingly choosing engineers as classification officers, however. As a group they are not notable for being expert in communicating with non-technical people. Some would not rate highly with respect to the Woodbridge specifications for semantics, rhetoric, politics, and diplomacy.

There is also the practical matter of the willingness of a person with engineering training to be a classification officer. If he is good he already has a well paid, useful, and respected career open to him. If he is not good, his shortcomings would probably make him a poor classification officer.

A curriculum leading to a degree in one of the natural sciences is also likely to produce capable classification people. Physics majors would seem particularly well equipped to operate successfully in several of today's important classification areas. Most of the favorable and unfavorable things that can be said about engineers as potential classification officers can also be said about straight science graduates.

### *Liberal Arts Suggested*

I suggest that a liberal arts curriculum would be the best basic training ground for a classification officer. I hasten to say I do not mean the liberal arts curriculum in which sciences and all other rigorous dis-

ciplines are carefully avoided in favor of music appreciation, etc. I mean the traditional liberal arts program aimed at providing basic understanding of both the physical and humanistic divisions of knowledge. (The etymon is *artes liberales*, meaning the knowledge suitable, in Graeco-Roman thought, to a free man — as differentiated from the slave artisan or technician — one who is expected to enter into the governing of things.) The broad scope of the good liberal arts program — natural science, social science, the humanities including communication skills — should provide the best background for the so unusually varied interests of the classification officer.

### *Some Specific Courses*

A good liberal arts curriculum for a classification officer would certainly require a strong emphasis in some natural science, at least a "minor." Even if the individual's classification career turns out to be in a nonscientific area, such as might possibly be encountered in the State Department for example, a basic understanding of science is virtually a must in this day and age. A "major" in a science would be excellent if the individual's interest ran strongly that way.

At least a second minor, and possibly a major, should be English, probably with stress on writing. Nothing is more important to a classification person than to be able to read intelligently and express himself clearly.

Formal logic should certainly be a requirement, for obvious reasons.

We could not leave out the area

of computers. The classification person is going to be unable to avoid a close and continuing association with them. So courses in computer theory, and in conjunction with that, linguistics, the science of language analysis, and library science would be included.

Rounding out the liberal arts curriculum would be psychology, history with geopolitical emphasis, public speaking, and if possible a foreign language.

I am sure that many members of the Society — there are many who have been educators — will be able to put forward better and more comprehensive ideas about curricula.

### *Other Qualifications*

But formal education alone will not assure success in classification any more than it will in other fields. What about the native abilities and temperament requirements? This of course could lead to limitless discussion, but here are a few characteristics that seem to me to be important:

—Ability to come to conclusions with reasonable promptness and to render clear decisions. This, of course, is an ability every successful person must have. But it is the first and foremost function of a classification person. His ability to answer the question "Is this classified?" is the reason he is valuable to his employer. This must be accompanied, however, by the next characteristic:

—Willingness to consult others. The good classification officer should be able to recognize when it is entirely within his competency to render

a decision, and when he should get help. He should know where to look and whom to ask.

—Inquisitiveness. He is quite willing to mind other people's business. He knows he cannot count on all the facts' being brought to his attention by others, so he pursues them for himself.

—Persistence. It is not always enough to make the decision. The classification officer has to follow up to see that the decision is honored in spirit as well as form, and that it continues to be honored. Some information keeps popping out in various disguises.

—Tact. Although the classification man has the advantage in most arguments with others about classification — he can hurl the thunderbolts of "interests of national defense" and "born classified" — he will not be successful in the long run if he is unnecessarily blunt, or impatient, arbitrary, or insensitive to the feelings of others.

—Imagination. At least enough to enable him to conceive of the possibility that he might be wrong.

—Intellectual honesty. This is perhaps the most important single characteristic. His decisions must be objective, not influenced by convenience or wishes of others including his boss. Most of us have a desire to be agreeable. There is thus an often unconscious compulsion to render the opinion the requester wants to hear. When the requester is the boss the compulsion is stronger. But in the long run the classification officer

serves best who gives objective opinions. That is really the measure of his professionalism.

If Classification Management is to enjoy the status of a full-fledged profession, it is surely desirable that we consider qualifications for entrance into it. This brief article may, perhaps, stimulate others to express their opinions on the subject. The Society may wish to appoint a committee for the purpose of making a formal study, the results to be reported at a future national meeting or in the *Journal*.

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## ERRATA

In the proceedings of the 1966 NCMS seminar, as reported in Volume II of the *Journal*, the reproduction of the speech of Dr. Laumor F. Carter, "National Document Handling Systems in Science and Technology," pages 96-105, was from a stenotypist transcript which contained errors, the most significant of which are corrected for the record as follows:

Wherever appearing, "Pavinski" should be "Pucinski," "Wineberg" should be Weinberg," "Cherad" should be "Sherrod," "Horned" should be "Hornig." On page 98, "108 percent" should be "180 percent," "photo reduction" should be "photo-reproduction," "docking" should be "document."

On page 99, "revolutionary" should be "evolutionary." On page 104, "I just read" should be "I will just read," "'accelerate efforts'" should be "'accelerate its efforts,'" "'information document handling system'" should be "information and document-handling systems," "'insuring the required cataloguing'" should be "'for ensuring the acquiring, cataloguing,'" "'library basis'" should be "'legislative bases,'" "'documentation information'" should be "'documentation and information,'" "'to assume the responsibilities that I outlined previously'" should be "'to assume responsibility for ensuring effective information and document-handling services in agreed-upon areas of science and technology.'"

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